

Smashing Matters

the making of a documentary



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Pratt Institute

RHIC / AGS Users Meeting
BNL 27 June 2013



Pratt

Brookhaven Lab

Pratt Institute



Pratt

Why make a documentary about physicists at a conference ?



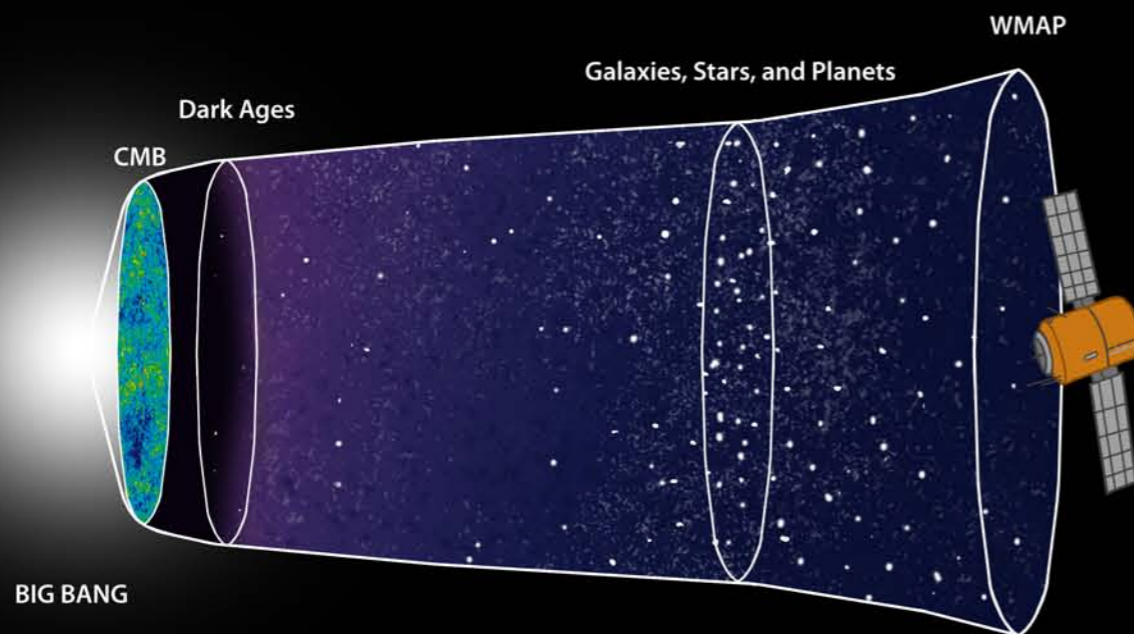
Communicate The Science

A deep space image showing a vast field of galaxies and distant stars against a black background. The galaxies are of various shapes and sizes, some appearing as bright, glowing clouds, others as more distant, faint points of light. The stars are scattered throughout the field, some appearing as bright, multi-pointed stars, others as smaller, dimmer points of light. The overall scene is a dense, colorful mosaic of cosmic objects.

credit NASA

Communicate The Science

THE UNIVERSE



RHIC

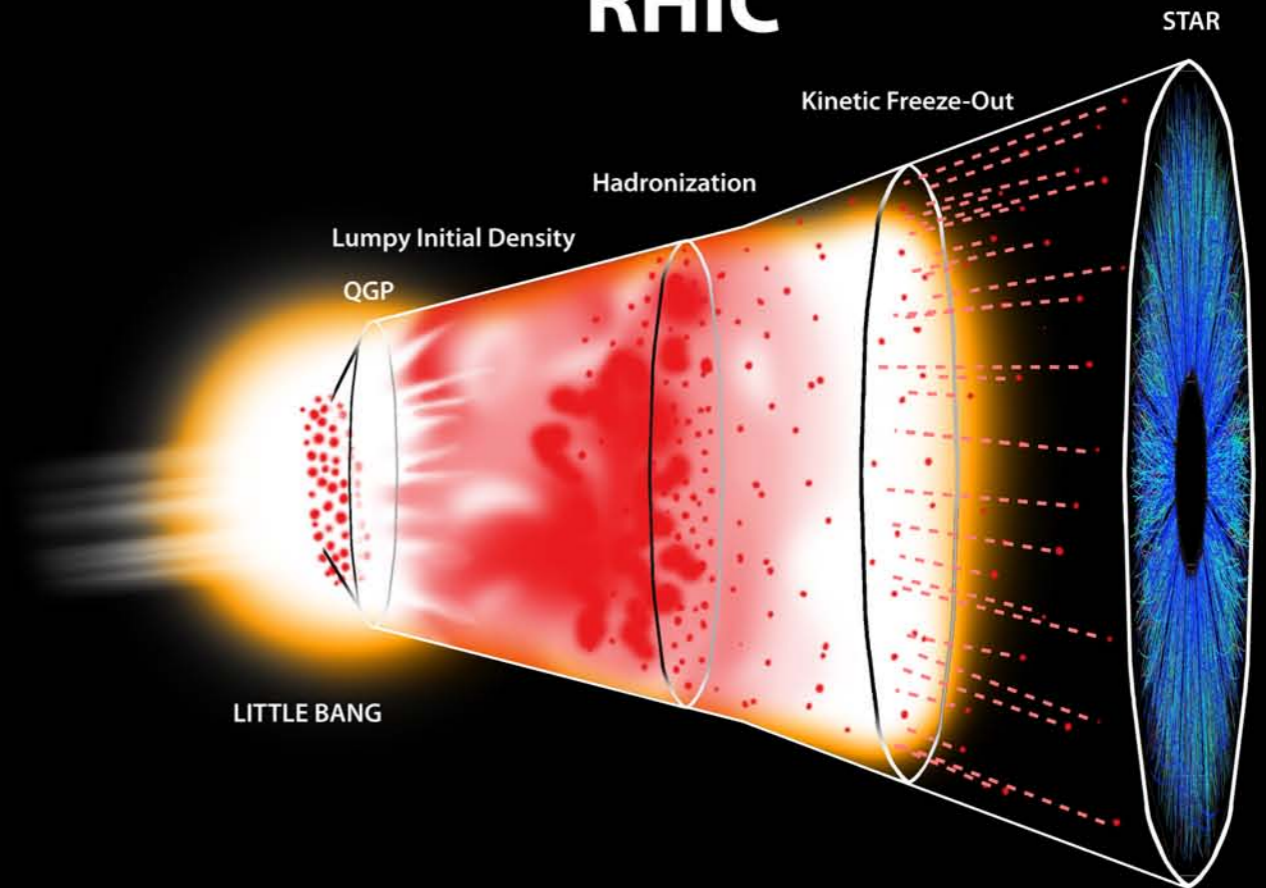
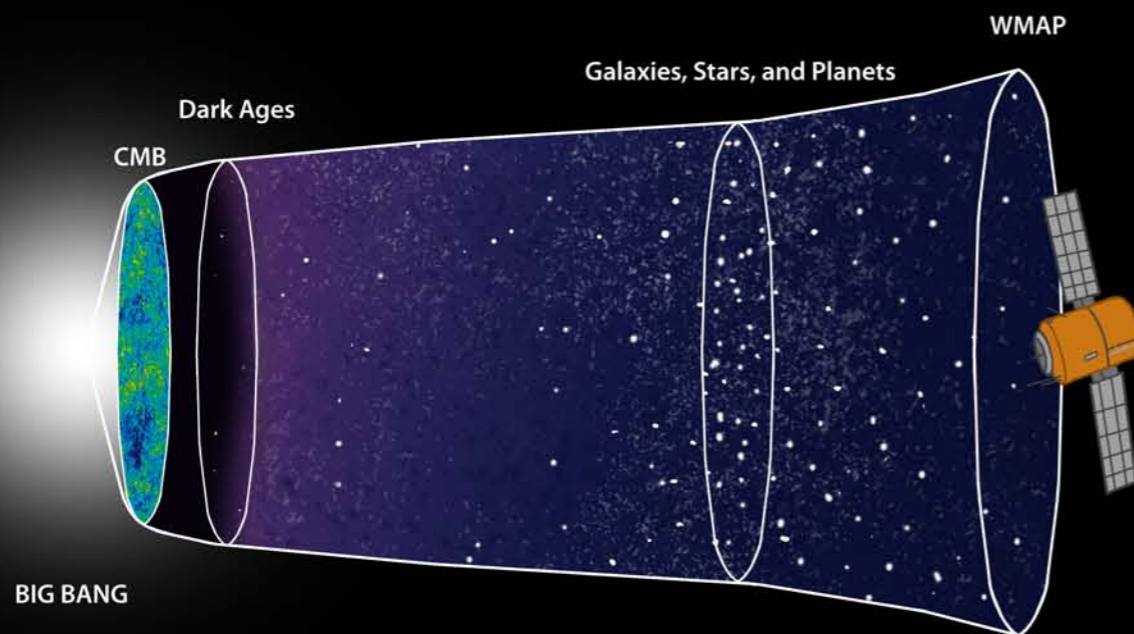


illustration by Alexander Doig

Communicate The Science

THE UNIVERSE



RHIC

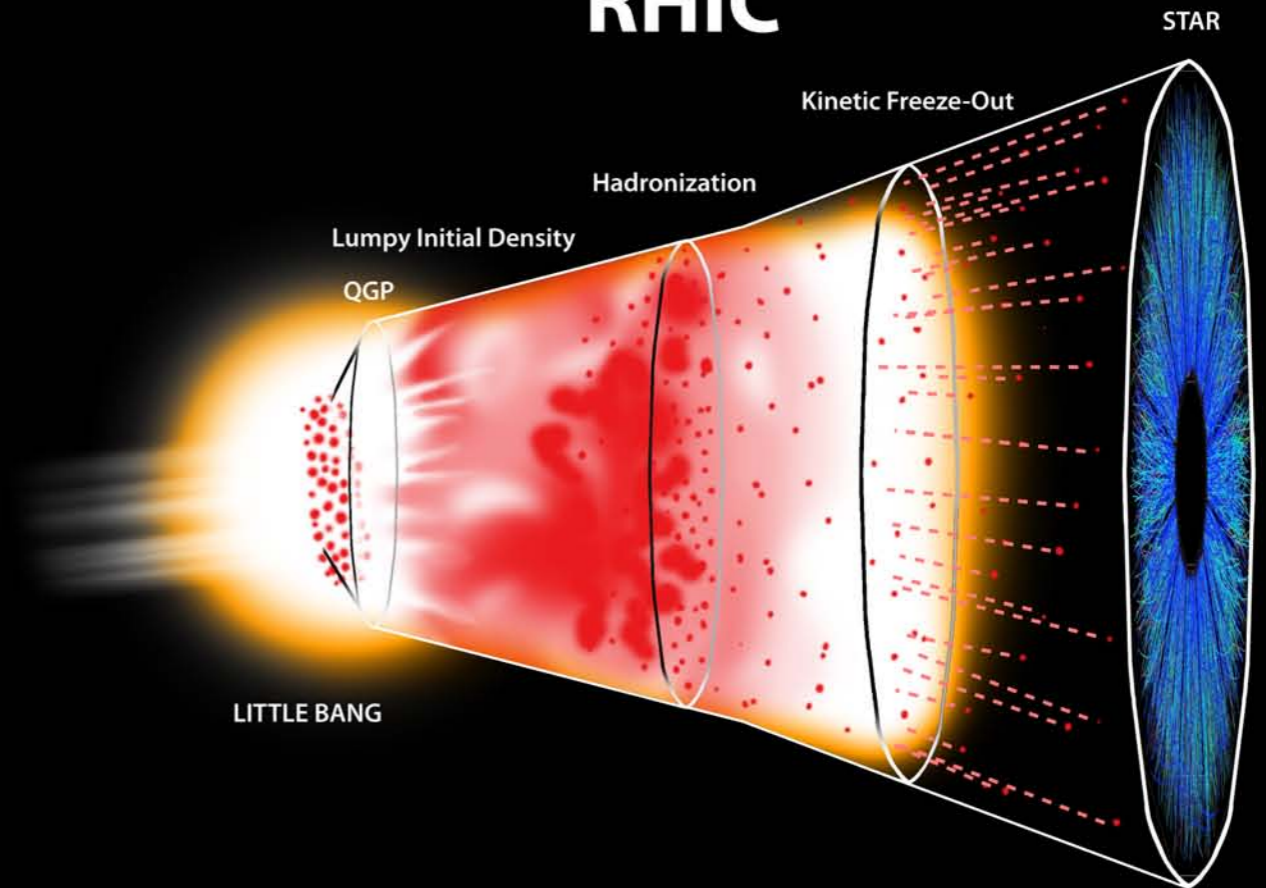
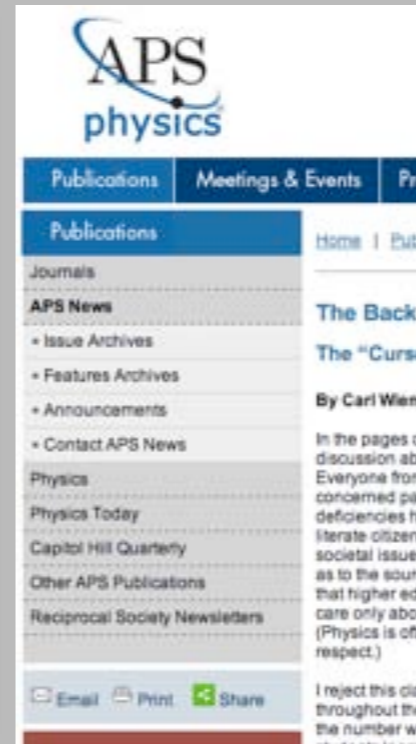


illustration by Alexander Doig

This is not science fiction.
This is science.

We Have Bad Communication

“consistently measured that student beliefs about the nature of physics, how it is learned and used, and how physics knowledge is established, on average, become less like those of a scientist after completing typical introductory college physics courses.”



Carl Wieman

Chairs the Board on Science Education of the Nat. Academy of Sci. and 2001 Nobel Prize in Physics



“our physics courses are actually teaching many students that physics knowledge is just the claim of an arbitrary authority, that physics does not apply to anything outside the classroom, and that physics problem solving is just about memorizing answers to irrelevant problems.”

Growing Anti-Science Movement



All that stuff I was taught about evolution and embryology and the big bang theory, all that is lies straight from the pit of Hell,"

I don't believe that the earth's but about 9,000 years old. I believe it was created in six days

The Committee on Science, Space and Technology is a committee of the United States House of Representatives. It has jurisdiction over non-defense federal scientific research and development. Specifically, the committee has partial or complete jurisdiction over the following federal agencies: NASA, the Department of Energy, EPA, ATSDR, NSF, FAA, NOAA, National Institute of Standards and Technology, FEMA, the U.S. Fire Administration, and United States Geological Survey.

This does not work so well.



Success of Evidence-Based Reasoning



A Personal Motivation

Perceptions

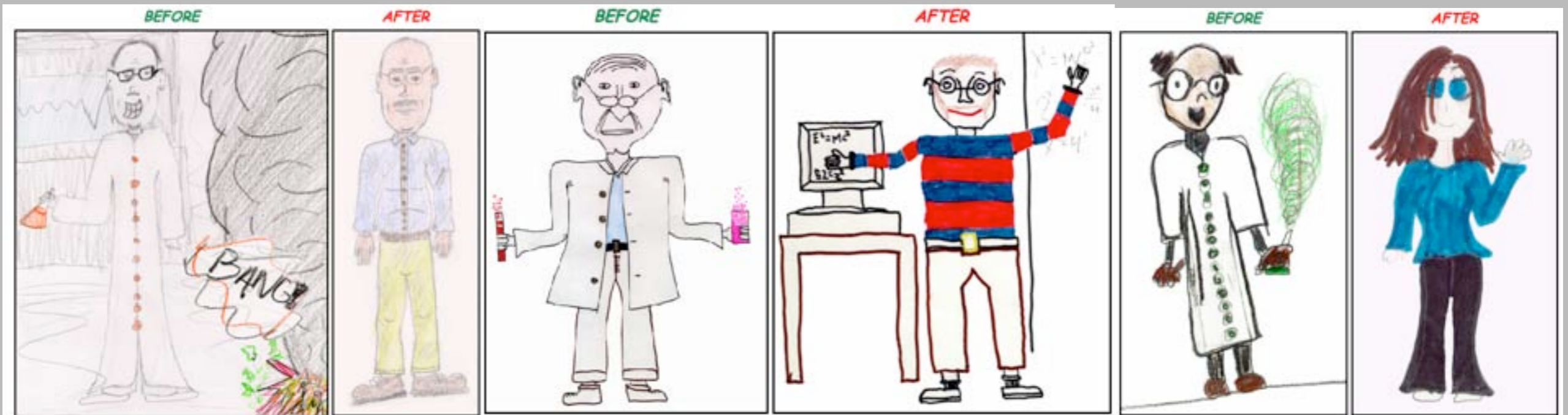
If you ask middle school students what a scientist looks like, they'll tell you he's an old white guy with crazy hair, glasses and a lab coat.



Fig. 7 A scientist "experimenting"

Changing Perceptions

People connect with emotions and personal stories. We can communicate our science better if we create a human connection with our audience.



What will this documentary be?



Pratt students talking to physicists at BNL



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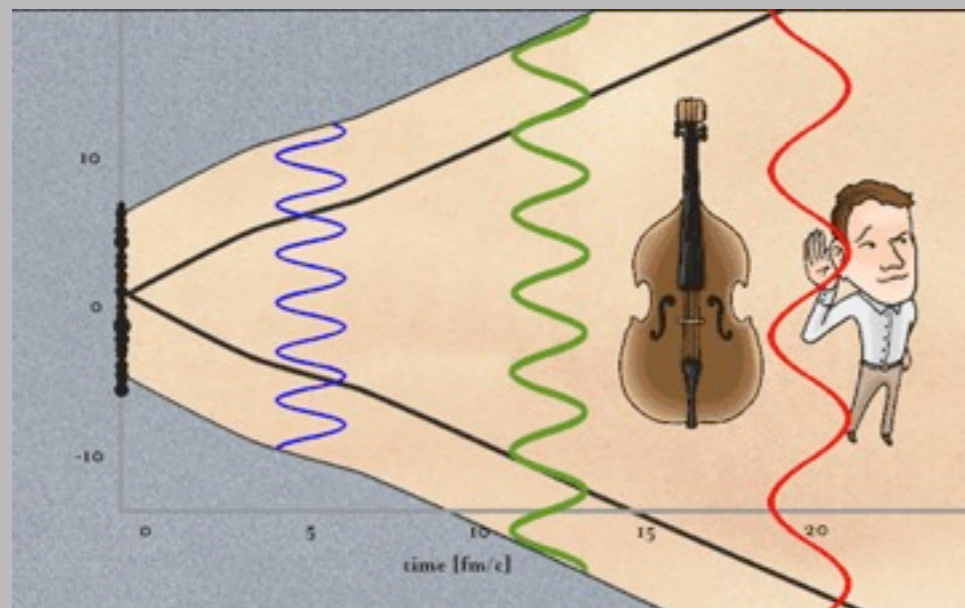
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THE SOUND of the LITTLE BANG

Ágnes Mócsy with Alex Doig and Paul Sorensen



www.soundofthelittlebang.com



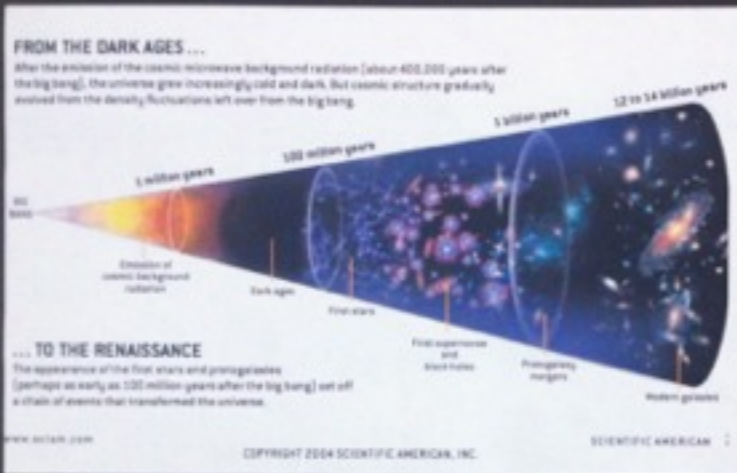
[watch the video](#)

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THE COSMOS CREATION COLLECTION



The Cosmos Creation Collection by Dalitza Babilonia *Fashion design*



amocsy@pratt.edu

The Crew

The Smashingmatters crew:



Lourenca Alencar
Camera Operator
Pratt film student and keen observer

Samantha Kahrar
Camera Operator
Pratt Film Major and gifted ventriloquist



Adam Warner
Story Development
multi-media journalist, graduate student at CUNY School of Journalism, science writer, Pratt graduate, poet and gardener

Paul Sorensen
Story Development
physicist, science advocate and fearless adventurer



Nicole Eure
Camera Operator
film-maker, collector and dealer of fine vintage objects, and amazing vegan chef

Justin Eure
Assistant Director
multimedia journalist, film-maker science writer, science advocate and spectacular nerd



www.smashingmatters.org

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Lourenca and Samantha



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Lo, Sam, and Max



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Adam



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Justin



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Nicole and Paul



Our Gear



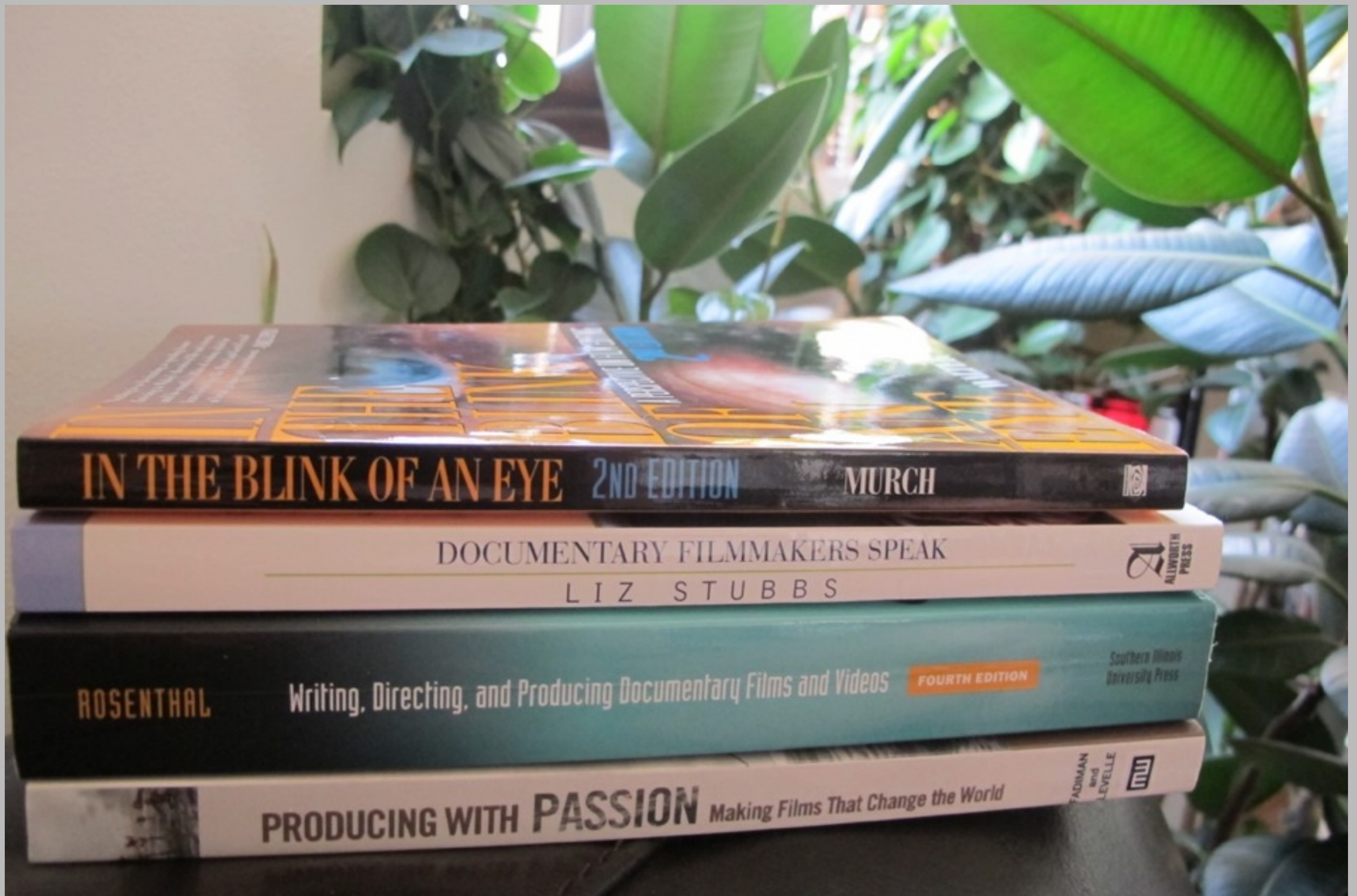
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Our Gear



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My Readings



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Friday, June 28, 13



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Thanks



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Thanks



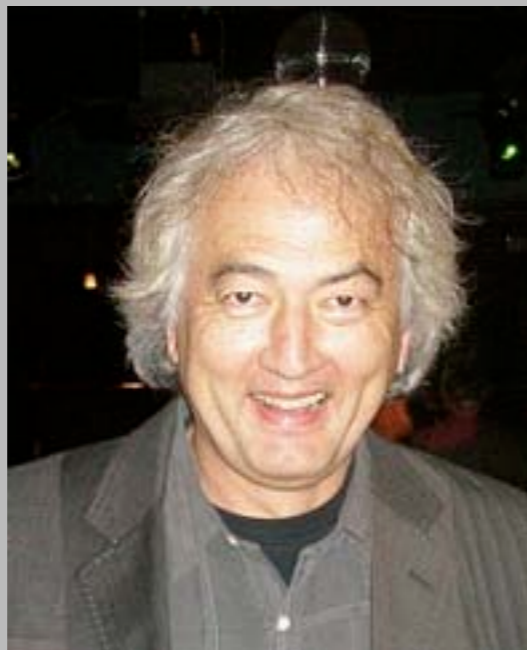
Berndt Mueller



Dean Andrew Barnes



Steve Vigdor



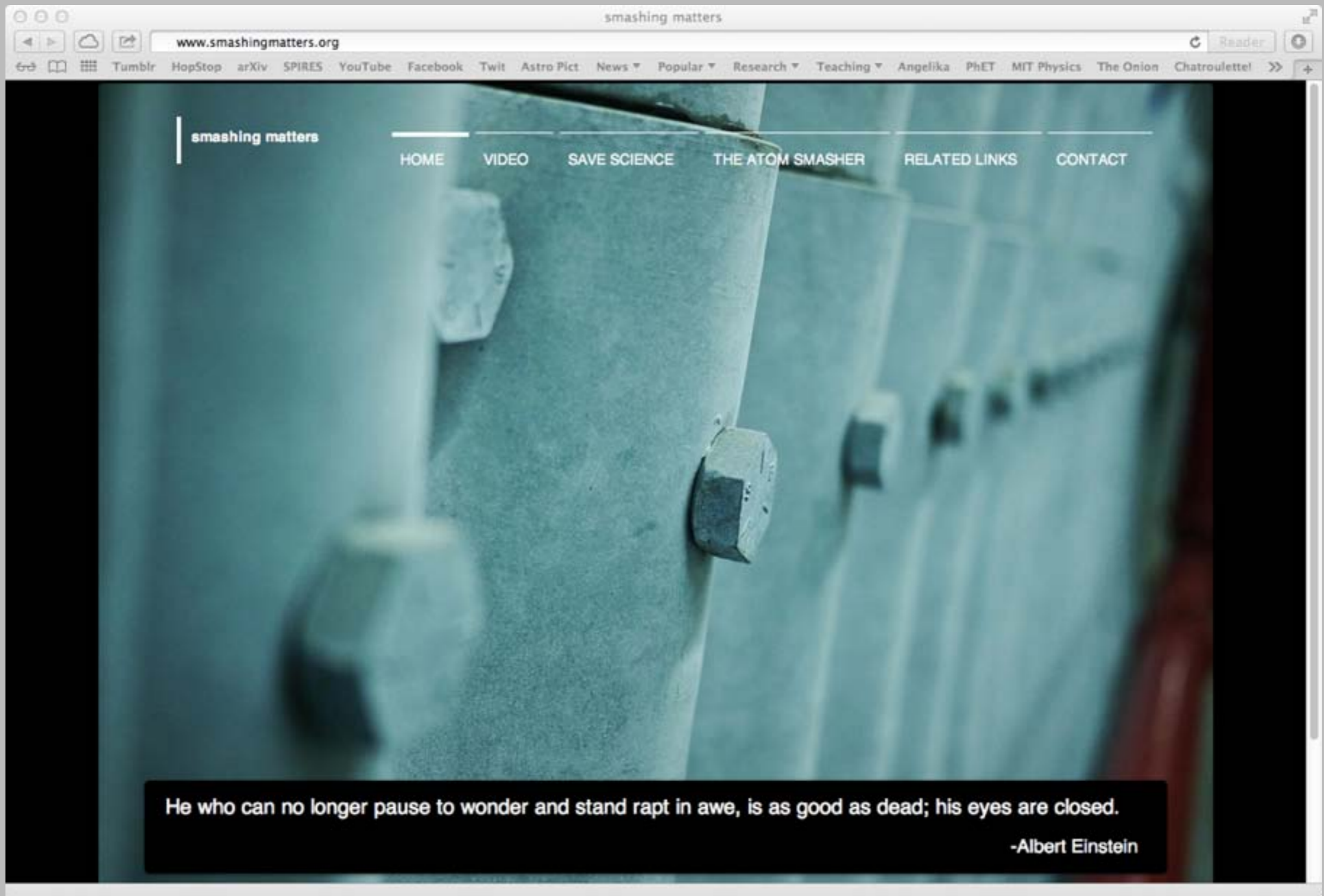
John Harris



Liz Mogavero

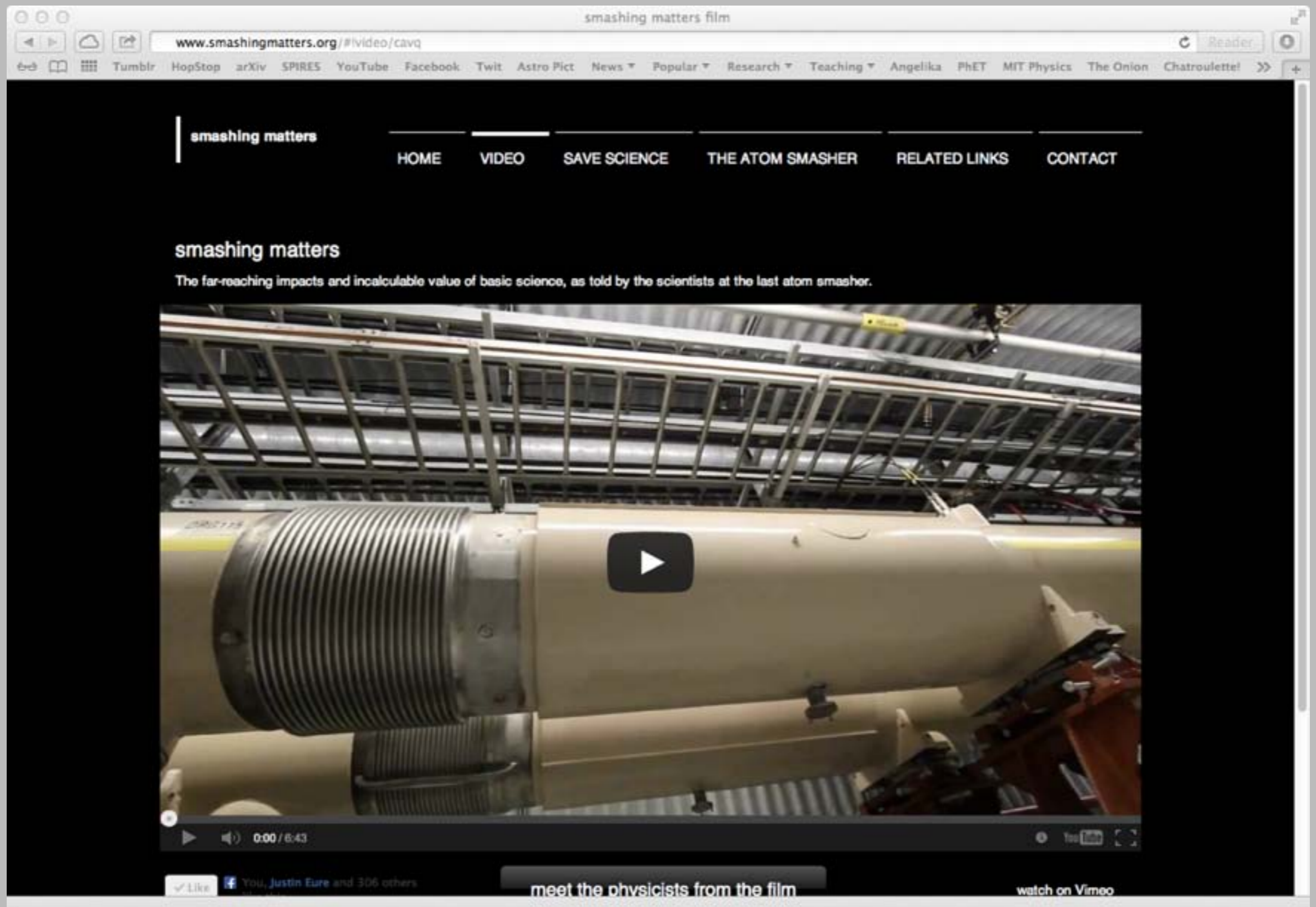
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[watch on youtube](#)



The screenshot shows a web browser window with the address bar displaying www.smashingmatters.org/#/video/cavq. The browser's address bar also shows "smashing matters film". The website's navigation bar includes links for HOME, VIDEO, SAVE SCIENCE, THE ATOM SMASHER, RELATED LINKS, and CONTACT. The main content area features the "smashing matters" logo and a tagline: "The far-reaching impacts and incalculable value of basic science, as told by the scientists at the last atom smasher." Below this is a large video player showing a close-up of a particle accelerator component, with a play button in the center. The video player's progress bar shows 0:00 / 6:43. At the bottom of the page, there is a button labeled "meet the physicists from the film" and a link to "watch on Vimeo".

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The End